



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/537,920

06/08/2005

Kenichiro Aridome

SON-3124

6735

23353 7590 03/13/2009
RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

DAZENSKI, MARC A

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

03/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,920	Applicant(s) ARIDOME ET AL.	
	Examiner MARC DAZENSKI	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 1 and 6-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 1 is objected to because of the following informalities: lines 4-5 of the claim refer to a "first size which is a size of a moving image object other than a final moving image object." The examiner interprets this first size to be the "predetermined size" disclosed at page 19, line 14 of the instant application. Further, it is unclear as to where in the specification "which is a size of a moving image object other than a final moving image object" is disclosed.

In addition, it is unclear what is meant by "a size of a moving image object for a seamless connection." The examiner interprets this in light of the explanation set forth on page 21, lines 15-24 of the instant application. Appropriate correction is required.

Claims 6-8 are objected to because of the following informalities: see the explanation in regards to objected claim 1 above. Appropriate correction is required.

Claims 9-10 are objected to because of the following informalities: see the explanation in regards to objected claim 1 above. In addition, there is no support for a "computer program product" in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Yamane et al (US Patent 6,393,196), hereinafter referred to as Yamane, further in view of Okada et al (US Patent 5,754,241), hereinafter referred to as Okada.

Regarding **claim 1**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses recording process circuit (20), which reads on the claimed "a record control apparatus," as disclosed at column 3, line 6; comprising:

a buffer memory (22) for storing the output of the recording process circuit (20), which reads on the claimed, "a buffer for storing moving image data belonging to a chapter," as disclosed at column 3, lines 9-10;

system control circuit (30) that checks through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "storage size detecting means for detecting that the moving image data stored in the buffer increases in size beyond a first size which is a size of a moving image object other than a final moving image object and then reaches a second size which is a size of a moving image object for a seamless connection," as disclosed at column 4, lines 45-48. Ogino, however,

Art Unit: 2621

fails to disclose final data detecting means for detecting that a final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide the missing limitation, as taught by Yamane.

In a similar field of endeavor, Yamane discloses a multimedia stream generating method enabling alternative reproduction of video data, and a multimedia optical disk authoring system. Further, Yamane discloses a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, which reads on the claimed, "final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 24, lines 10-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ogino to include a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, as taught by Yamane, for the purpose of identifying separate recorded video files.

The combination of Ogino and Yamane, however, fails to disclose moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as the moving image object if it is detected that the moving image data stored in the buffer reaches the second size over the first size, and retrieving a whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer.

Art Unit: 2621

However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , which reads on the claimed, "moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as the moving image object if it is detected that the moving image data stored in the buffer reaches the second size over the first size, and retrieving a whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino and Yamane to specifically include when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit

Art Unit: 2621

buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors.

Regarding **claim 7**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses a recording control process carried out by a recording process circuit (20), which reads on the claimed, "a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter," as disclosed at column 3, lines 6-7; the process comprising:

storing a compressed signal output from a recording process circuit (20) into one of eight banks of buffer memory (22), which reads on the claimed, "a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer," as disclosed at column 4, lines 8-14;

system control circuit (30) checking through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V_1 , which reads on the claimed, "a step of detecting that the moving image data stored in the buffer increases in size beyond a first size which is a size of a moving image object other than a final moving image object and then reaches a second size which is a size of a moving image object for a seamless connection," as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving

Art Unit: 2621

image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size over the first size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , which reads on the claimed, “a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size over the first size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer,” as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the recording control process of Ogino to specifically include when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors. The combination fails to disclose a step of detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Yamane.

In a similar field of endeavor, Yamane discloses a multimedia stream generating method enabling alternative reproduction of video data, and a multimedia optical disk authoring system. Further, Yamane discloses a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, which reads on the claimed, "a step of detecting that a final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 24, lines 10-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, as taught by Yamane, for the purpose of identifying separate recorded video files.

Regarding **claim 8**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses a recording control process carried out by a recording process circuit (20), which reads on the claimed, "a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter," as disclosed at column 3, lines 6-7; the process comprising:

the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V_2 , which is smaller than the first threshold value, which reads on the claimed, "a step of setting a first size of a moving image object as a standard size of the moving image object, and a second size of a moving image object as a lower limit value of the moving image object for seamless connection," as disclosed at column 4, lines 58-64;

storing a compressed signal output from a recording process circuit (20) into one of eight banks of buffer memory (22), which reads on the claimed, "a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer," as disclosed at column 4, lines 8-14;

system control circuit (30) checking through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V_1 , which reads on the claimed, "a step of detecting that the moving image data stored in the buffer increases in size beyond a first size which is a size of a moving image object other than a final moving image object and then reaches a second size which is a size of a moving image object for a seamless connection," as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose a step of retrieving a portion

Art Unit: 2621

of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , which reads on the claimed, “a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size over the first size, a step of retrieving a whole moving image data stored in the buffer and outputting the retrieved whole moving image data as a moving image object if it is

Art Unit: 2621

detected that the final moving image data belonging to the chapter is stored in the buffer,” as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the recording control process of Ogino to specifically include when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors. The combination fails to disclose a step of detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Yamane.

In a similar field of endeavor, Yamane discloses a multimedia stream generating method enabling alternative reproduction of video data, and a multimedia optical disk authoring system. Further, Yamane discloses a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, which reads on the claimed, “a step of detecting that a final moving image data belonging to the chapter is stored in the buffer,” as disclosed at column 24, lines 10-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include a unit END flag is declared to indicate

Art Unit: 2621

whether the video object unit VOB is the last VOB in the interleaved unit ILV, as taught by Yamane, for the purpose of identifying separate recorded video files.

Regarding **claim 9**, the limitations of the claim are rejected in view of the explanation set forth in claim 7 above.

Regarding **claim 10**, the limitations of the claim are rejected in view of the explanation set forth in claim 8 above.

Claim 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Yamane et al (US Patent 6,393,196), hereinafter referred to as Yamane, further in view of Okada et al (US Patent 5,754,241), hereinafter referred to as Okada, further in view of Shikunami (US Patent 6,718,121), hereinafter referred to as Shikunami.

Regarding **claim 2**, the combination discloses everything claimed as applied above (see claim 1). In addition, Ogino discloses the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V2, which is smaller than the first threshold value, which reads on the claimed, "threshold detecting means for detecting that the time measurement means detects the second size after the size measurement means detects the first size," as disclosed at column 4, lines 58-64. The combination fails to disclose, however, size measurement means for measuring a size of the moving image data stored in the buffer, time measurement means for measuring time by converting, into time, the size of the moving image data stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitations, as taught by Shikunami.

Art Unit: 2621

In a similar field of endeavor, Shikunami discloses an information signal processing apparatus using a variable compression rate in accordance with contents of information signals. Further, Shikunami discloses the control portion (6) calculates the recording picture quality and the recording time based on the recordable remaining capacity of the optical disk (1), which reads on the claimed, "size measurement means for measuring a size of the moving image data stored in the buffer, time measurement means for measuring time by converting, into time, the size of the moving image data stored in the buffer," as disclosed at column 6, line 67 through column 7, line 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include the control portion calculates the recording picture quality and the recording time based on the recordable remaining capacity of the optical disk, as taught by Shikunami, for the purpose of utilizing numbers that require less memory usage thereby reducing the calculation requirements of the control portion.

Regarding **claim 3**, the combination discloses everything claimed as applied above (see claim 2). In addition, Ogino discloses threshold values V1 and V2 that are stored in the memory (31) either in a fixed manner or variable through the function of the operation unit (38), which reads on the claimed, "wherein the storage size detecting means further comprises i0 threshold holding means for holding the first size and the second size and supplying the threshold detecting means with the first size and the second size," as disclosed at column 5, lines 40-42.

Regarding **claim 4**, the combination discloses everything claimed as applied above (see claim 3). In addition, Ogino discloses the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V_2 , which is smaller than the first threshold value, which reads on the claimed, "threshold setting means for setting the first size of the moving image object as a standard size of the moving image object, and the second size of the moving image object as a lower limit value of the moving image object for the seamless connection," as disclosed at column 4, lines 58-64.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Yamane et al (US Patent 6,393,196), hereinafter referred to as Yamane, further in view of Okada et al (US Patent 5,754,241), hereinafter referred to as Okada, further in view of Imada et al (US Patent 7,254,318) hereinafter referred to as Imada.

Regarding **claim 5**, the combination discloses everything claimed as applied above (see claim 1). The combination, however, fails to disclose wherein the moving image object output means comprises packing means for dividing the moving image data retrieved from the buffer into packs, each pack having a fixed length, and multiplexing means for multiplexing the packed moving image data and outputting the multiplexed moving image data as the moving image object. However, the examiner maintains that it was well known in the art to include the missing limitations, as taught by Imada.

In a similar field of endeavor, Imada discloses a recording apparatus, recording program, and recording method. Further, Imada discloses an MPEG encoder (2) that encodes video signal to generate a content (synonymous with VOB), which reads on the claimed, "wherein the moving image object output means comprises packing means for dividing the moving image data retrieved from the buffer into packs, each pack having a fixed length and multiplexing means for multiplexing the packed moving image data and outputting the multiplexed moving image data as the moving image object," as disclosed at column 5, lines 34-36, and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include the MPEG encoder that encodes video signals to generate a content (synonymous with VOB), as taught by Imada, for the purpose of creating an MPEG compatible data stream.

Regarding **claim 6**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses recording process circuit (20), which reads on the claimed "a record control apparatus," as disclosed at column 3, line 6; comprising:

a buffer memory (22) for storing the output of the recording process circuit (20), which reads on the claimed, "a buffer for storing moving image data belonging to a chapter," as disclosed at column 3, lines 9-10;

system control circuit (30) that checks through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "storage size detecting means for detecting that the moving image data stored in the buffer increases in size

Art Unit: 2621

beyond a first size which is a size of a moving image object other than a final moving image object and then reaches a second size which is a size of a moving image object for a seamless connection,” as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitation, as taught by Yamane.

In a similar field of endeavor, Yamane discloses a multimedia stream generating method enabling alternative reproduction of video data, and a multimedia optical disk authoring system. Further, Yamane discloses a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, which reads on the claimed, “final data detecting means for detecting that a final moving image data belonging to the chapter is stored in the buffer,” as disclosed at column 24, lines 10-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ogino to include a unit END flag is declared to indicate whether the video object unit VOB is the last VOB in the interleaved unit ILVU, as taught by Yamane, for the purpose of identifying separate recorded video files.

The combination of Ogino and Yamane, however, fails to disclose moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and

Art Unit: 2621

retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to include the missing limitations, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , which reads on the claimed, “moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer,” as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include when an occupying amount B_m of the bit buffer (2) exceeds the threshold value B_{thn} , the determining circuit

Art Unit: 2621

(5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of B_m of the bit buffer (2) smaller than the threshold value B_{thn} , as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors.

The combination, however, fails to disclose moving image encoding means for encoding a moving image signal and outputting the encoded moving image signal as moving image data, audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data. However, the examiner maintains that it was well known to include the missing limitation, as taught by Imada.

In a similar field of endeavor, Imada discloses a recording apparatus, recording program, and recording method. Further, Imada discloses an MPEG encoder (2) that encodes video signal to generate a content (synonymous with VOB), which reads on the claimed, "moving image encoding means for encoding a moving image signal and outputting the encoded moving image signal as moving image data," as disclosed at column 5, lines 34-36; and an audio encoder (8), which reads on the claimed, "audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data," as disclosed at column 5, line 24, and exhibited in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include an MPEG encoder and an audio encoder, as taught by Imada, for the purpose of creating an MPEG compatible data stream.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/MARC DAZENSKI/
Examiner, Art Unit 2621